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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

WAKS, JOSEPH

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 02/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/194,991

Applicant(s)

WEILER ET AL.

Examiner

Joseph Waks

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2000.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 39-46, 48-62 and 69-746 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 54-59 and 69-73 is/are allowed.
- 6) ☒ Claim(s) 39-46, 50-53, 60-63 and 74 is/are rejected.
- 7) ☒ Claim(s) 48, 49 and 66 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Art Unit: 2834

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the armature being actuated by a magnetic leakage flux generated by the stator as recited in claim 44 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. **Claim 44** is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 44, the feature of the armature being actuated by a magnetic leakage flux generated by the stator is not clearly described in specification or shown in the drawings.

4. **Claim 44** is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Art Unit: 2834

For the reasons indicated above one skilled in the art would not be able to make and/or use the invention.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 39-46** are rejected under 35 U.S.C. 102(b) as being anticipated by **Henschke (US 3,402,308)**.

Henschke discloses in Figure 1 invention as claimed: an actuating unit connected to a power transmission element or a spindle 43 and consisting of an electric motor 10 of any known type of motors and a reduction gear in a form of the spindle drive arranged between the motor and the power transmission element, wherein a rotor 21, 22, 24 of the motor is shaped in a hollow fashion and radially encompasses the reduction gear, a spindle nut 23 inside the rotor connected to the rotor in a power transmission fashion, the spindle drive being realized in a self-locking fashion (Re column 2, lines 21-30).

Note: the recitation that the electromechanical component is for actuating a vehicle parking brake of the type including a drum brake with two brake shoes and an expending lock has not been given patentable weight because it has been held that a preamble is denied the effect of a limitation where the claim is drawn to a structure and the portion of the claim following the preamble is a self-contained description of the structure not depending for completeness upon the introductory clause. *Kropa v. Robie*, 88 USPQ 478 (CCPA 1951).

Art Unit: 2834

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 39-41** are rejected under 35 U.S.C. 103 as being unpatentable over **Korthhaus et al. (GB 1,027,600)** in view of **Henschke (US 3,402,308)**.

Korthhaus et al. disclose in Figure an actuating unit connected to a power transmission element or a spindle 12, 13 and consisting of an electric motor of any known type of motors (Re page 2, lines 56-61) and a reduction gear in a form of the spindle drive 8, 11 arranged between the motor and the power transmission element, wherein a rotor 4 of the motor is shaped in a hollow fashion and radially encompasses the reduction gear, a spindle nut connected to the rotor in a power transmission fashion, the spindle drive being realized in a self-locking fashion (Re page 2, lines 127-130 and page 3 lines 1-14), the spindle drive being not realized in a self-locking fashion and cooperates with a locking mechanism by means of a ball screw 11, the locking mechanism being an electromagnetic braking device formed by an armature of a magnetic clamp 18 engaged with a friction surface of the rotor and cooperating with the rotor by means of spring 27, the spindle being secured from rotating (Re page 2, lines 84-88), and the housing 1. However, **Korthhaus et al.** do not disclose the spindle nut inside the rotor.

Henschke discloses an actuating unit connected to a power transmission element or a spindle having the spindle nut 23 inside the rotor for the purpose of providing a linear power

Art Unit: 2834

transmission element that is economical to manufacture, easy to assemble and obviates the necessity of precisely manufactured parts with small tolerances.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the actuating unit as taught by **Korthhaus et al.** and to provide the spindle nut inside the rotor as taught by **Henschke** for the purpose of providing a linear power transmission element that is economical to manufacture, easy to assemble and obviates the necessity of precisely manufactured parts with small tolerances.

Note: the recitation that the electromechanical component is for actuating a vehicle parking brake of the type including a drum brake with two brake shoes and an expending lock has not been given patentable weight because it has been held that a preamble is denied the effect of a limitation where the claim is drawn to a structure and the portion of the claim following the preamble is a self-contained description of the structure not depending for completeness upon the introductory clause. *Kropa v. Robie*, 88 USPQ 478 (CCPA 1951).

9. **Claims 50-53** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Korthhaus et al. (GB 1,027,600)** in view of **Prokop (US 4,386,684)**.

Korthhaus et al. disclose the electromechanical component essentially as claimed. However, **Korthhaus et al.** fail to disclose the housing in a form of deep drawn sheet metal part.

Prokop discloses in column 1, lines 20-25 and 44-46 a housing 35 for electromechanical component actuating vehicle brakes made of stamped metal sheet for the purpose of reducing the cost of manufacturing of the housing (Re column 1, lines 31-33).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the electromechanical component as taught by **Korthhaus et al.**

Art Unit: 2834

and to provide the housing in a form of deep drawn sheet metal part as taught by **Prokop** for the purpose of reducing the cost of manufacturing of the housing.

10. **Claims 60, 61 and 74** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Korthhaus et al. (GB 1,027,600)** in view of **Newstead (US 3,762,510)** and **Kazunishi (US 4,541,303)**.

Korthhaus et al. disclose the electromechanical component essentially as claimed. However, **Korthhaus et al.** fail to disclose the steel cable line arranged between the power transmission element and the expanding lock activating two brake shoes of a drum brake.

Newstead discloses a sheathed cable line 11 arranged between the power transmission element and the expanding lock 15 for the purpose of activating two brake shoes of a drum brake.

Kazunishi discloses a flexible coaxial pushpull cable comprising a sheathed cable line 2 comprising a steel strand core 6 and the plastic sheathing 3 surrounding the steel strand 6 for the purpose of providing a flexible pushpull cable capable of reducing a power transmission error resulting from bending deformation of the core cable in the region of the connection joint.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the electromechanical component as taught by **Korthhaus et al.** and to provide the sheathed cable line arranged between the power transmission element and the expanding lock as taught by **Newstead** for the purpose of activating two brake shoes of a drum brake. It would have been further obvious to one having ordinary skill in the art at the time the invention was made to design the combined electromechanical component and to provide the sheathed cable line comprising a steel strand core and the plastic sheathing surrounding the steel

Art Unit: 2834

strand arranged as taught by **Kazunishi** for the purpose of providing a flexible pushpull cable capable of reducing a power transmission error resulting from bending deformation of the core cable in the region of the connection joint.

11. **Claim 62** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Korthhaus et al. (GB 1,027,600)** in view of **Newstead (US 3,762,510)** and **Kazunishi (US 4,541,303)** as applied to claim 60 above and further in view of **Gutierrez et al. (DE 197 34 864 A1)**

The combined electromechanical component discloses all elements essentially as claimed. However, it fails to disclose the cable line being pressed into the conical power transmission element.

Gutierrez et al. disclose in Figures 1a-2c the cable line 9 being pressed into the conical bore 5 in the power transmission element with a nipple 2 for the purpose of providing a simple , especially blind fitting of the brake cable.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined electromechanical component and to provide the cable line being pressed into the conical bore in the power transmission element with a nipple as taught by **Gutierrez et al.** for the purpose of providing a simple , especially blind fitting of the brake cable.

Allowable Subject Matter

12. **Claims 48, 49 and 66** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2834

Re claims 48 and 49, the feature of the housing containing an axial tubular extension protruding into interior of the rotor and accommodating an end of the spindle facing the expanding lock and securing the spindle from rotation, in combination with the other limitations present, are neither disclosed nor taught by the prior art of record.

Re claim 66, the feature of the bellows accommodated in the circular depression in the housing, in combination with the other limitations present, are neither disclosed nor taught by the prior art of record.

13. **Claims 54-59, and 69-73** are allowed.

Re claim 54, the feature of the fixed bearing being held in the housing by rolling up a rotor end wherein the fixed bearing supports the rotor end, in combination with the other limitations present, are neither disclosed nor taught by the prior art of record.

Re claims 55-59, the feature of the bearing cover being fixed by rolling up the housing and enclosing an end of the housing, in combination with the other limitations present, are neither disclosed or taught by the prior art of record.

Re claim 69-72, the feature of the reduction gear radially encompassed by the hollow rotor and a planetary gear arranged between the rotor and the planetary gear, in combination with the other limitations present, are neither disclosed nor taught by the prior art of record.

Re claim 73, the feature of the housing provided with a constriction for mounting the actuating unit by rolling up edges of a cutout in a dirt trap, in combination with the other limitations present, are neither disclosed nor taught by the prior art of record.

Art Unit: 2834

Response to Arguments

14. Applicant's arguments filed September 25, 2000 have been fully considered but they are not persuasive.

Examiner respectfully traverses applicants' arguments with respect to drawings and claim rejection under 35 U.S.C. 112, first paragraph. The poor quality of the submitted drawings and vague description of the locking system provided in page 6, lines 13-16 and page 2, lines 1-2 are insufficient for one of ordinary skills in the art to make and/or use the invention.

A mere statement that the armature or the magnetic clamp is activated by the magnetic leakage flux generated by the stator and being able to engage a friction disc by means of spring, without clearly identifying the recited elements in the drawings (the clamp is not indicated in the drawing at all, the other elements are obscured by a poor quality of provided prints) and without clear definition of the magnetic leakage flux meet neither the drawings requirements as set by 37 CFR 1.83(a) nor the specification requirements under 35 U.S.C. 112, first paragraph. MPEP § 608.01(g) states that every applicant is permitted to use his own terminology as long as it can be understood.

15. Re claims 60 and 74. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In this particular case the Newstead brakes can be actuated by any suitable actuator, that includes the linear type actuator as disclosed by Korthhaus et al.

Art Unit: 2834

The Newstead's cable that transmits the linear movement to the brakes may be improved in view of the Kazunishi's disclosure. Therefore, the combined structure discloses the invention as claimed and the provided motivation in both cases is appropriate.

16. Applicant's arguments with respect to claim 39 have been considered but are moot in view of the new ground(s) of rejection.

Prior Art

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Conclusion

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Waks whose telephone number is (703) 308-1676. The examiner can normally be reached on Monday through Thursday 8 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor R Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-1341 for regular communications and (703) 305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.


JOSEPH WAKS
PRIMARY PATENT EXAMINER
TC-2800

JW
January 30, 2003